

STATEMENT OF
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Mr. Chairman and Members of the Subcommittee:

Thank you for inviting me to speak with you today to discuss health informatics and successful methods of intergovernmental information sharing and emergency response.

Current State of Health Information Exchange

Until recently, the Federal Health information enterprise was neither operating at optimum economy and efficiency, nor able to fully support critical national health and security needs. In the past, government-wide standards had not been implemented for the exchange of health data among federal departments and agencies; that is, when handling electronic medical records we seldom "speak the same language." For the few existing interoperability partnerships between federal health data users, only a small number of systems were involved, yet these partnerships had proven difficult to implement.

Particularly in Federal interaction outside the federal government, paper-based processes and information exchanges are time-consuming, error-prone and costly, and continue to be the primary way health data and patient medical records are exchanged. Our ability to respond to national medical emergencies and bio-terrorism is hindered when we are not able to share and interpret information quickly and reliably.

To improve our ability to exchange health-related data nationally within and across business functions in an efficient, timely manner, the President issued on April 27, 2004, Executive Order 13335, "Incentives for the Use of Health Information Technology and Establishing the Position of the National Health Information Technology Coordinator." This Executive Order supports leadership for the development and nationwide implementation of an interoperable health information technology infrastructure to improve the quality and efficiency of health care.

Additionally, the Administration launched government-wide efforts to improve the automation and sharing of health-related data. In 2001, the Consolidated Health Informatics (CHI) E-Government initiative, led by the Department of Health and Human Services (HHS) began. Its purpose was to improve information sharing through the

adoption and implementation of standards. In 2003, the Federal Health Architecture, also led by HHS, was created to develop a Federal framework for improved information sharing and standards implementation.

Through the Executive Order and these two government-wide efforts, we are working to achieve the following three goals:

1. Adoption of standards to promote interoperability;
2. Development of Federal health architecture, providing a framework for information sharing; and
3. Development of strong partnerships with state and local organizations and industry, through pilot projects and interaction with the National Committee on Vital and Health Statistics (NCVHS).

Establish Standards – Consolidated Health Informatics

A critical step in achieving the President's goal of empowering Americans with electronic health care records within ten years is to enable the exchange of health information. Effective exchange of health care information has already enabled some federal agencies to make significant strides towards improving patient safety, reducing error rates, lowering administrative costs, and strengthening national public health and disaster preparedness. The task now is to extend the exchange of compatible health data across agencies, government-wide. This government-wide interoperability will be based on the adoption of data standards yielding further benefits and providing a model for the health care community to follow in the development of future IT systems.

The Consolidated Health Informatics (CHI) initiative is one of the 24 Presidential e-Government Initiatives. Its goal is to adopt vocabulary and messaging standards to facilitate communication of clinical information across the federal health enterprise. For the first time, the federal health care sector will use the same vocabulary to enable exchange of health information over secure electronic networks. In order to achieve interoperability, CHI standards must be used in information technology systems. CHI was primarily responsible for the adoption of these standards, and the implementation of the standards will take place in the next stages of the project through the Federal Health Architecture Program in HHS.

CHI participants include the three lead partners who deliver health care services: the Departments of Health and Human Services, Defense, and Veterans Affairs, as well as supporting federal agencies who handle health related data, including Social Security Administration, Department of Commerce, and Environmental Protection Agency. An interagency CHI Council directs the initiative, and decisions are made on a consensus basis. In addition, NCVHS serves as the forum for communicating CHI recommendations to, and obtaining feedback from the private sector.

CHI participants identified 24 clinical subject matter domains where standards should be considered. These domains encompass a significant amount of health-related data, including such clinical data content as laboratory results, medications, diagnoses and problem lists, and images. Groups of subject matter experts analyzed candidate standards and drafted recommendations, which were exhaustively reviewed within government and by the NCVHS. Adoption of the first five domains of standards was announced by Secretary Thompson in March 2003, and standards addressing an additional fifteen domains were adopted on May 6, 2004.

CHI's success can be measured in several ways:

1. Agreed to the government-wide adoption and implementation of standards for 20 different data domains, to be incorporated into agencies' health data architectures.
2. Created a model process for government-wide collaboration in the interests of interoperability, using only in-kind resources.
3. Produced comprehensive research on standards, with final work papers available on the OMB website as resources for public use.
4. Reinforced the critical role of industry consensus standards in health care, as well as the need for federal participation in standards developing organizations.

These accomplishments serve as critical building blocks for achieving the President's goals relating to electronic health records. Subsequent activities will focus around facilitating implementation of the standards in federal health information technology projects, working with industry standards organizations to improve the adopted standards, and addressing identified needs for new standards.

The CHI standards form the basis for electronic health data transfer in all activities and projects and among all Federal agencies. Standards adoption must be coupled with transition strategies and processes to refresh standards in order to keep the enterprise-wide health data architecture viable. Adopting and maintaining standards is an ongoing activity requiring the implementation of a robust change management process.

Develop a Federal Health Architecture

As standards are being adopted by CHI, the Federal Health Architecture Program (FHA) is creating an architectural foundation by building out the Health Line of Business within the Federal Enterprise Architecture (FEA), acting as a government wide framework to implement these standards and to enable information sharing. FHA has been in existence for over a year, and was more formally announced as one of OMB's Line of Business Task Forces in March 2004.

The FHA will enable the employment or migration of existing systems to meet citizen-centric business activities while providing clear rules for the development of new tools for improved government performance in the health arena. The FHA will provide the Federal, State, Local and Tribal Governments, as well as health related organizations and

industries with the ability to identify cross functional processes, redundant systems, areas for collaboration, and opportunities to enhance interoperability in their critical information systems and infrastructure. The FHA will also provide a framework for linking health business processes to technology solutions and standards, and for demonstrating how these solutions achieve improved health performance outcomes.

This program will be developed collaboratively with federal partners and key partners throughout the health community. Additionally, it will promote the best practices of the IT industry and leverage the FEA model while overlapping the enterprise architectures of partner departments.

The direct products of the FHA will include the following:

- A framework or roadmap for future health information technology investments;
- Long term partnerships and collaborative solutions across the Health Line of Business within the federal government;
- A robust FHA data repository, serving as a tool for decision-making;
- Identification of needs in areas where data standards do not currently exist, or where consensus has not yet been reached on which standard set to adopt; and
- Suggested transition strategies and plans.

FHA has created a collaborative body of stakeholders to consider and prioritize the health business processes, starting with public health monitoring, offering the greatest opportunities for increased health benefits through a coordinated partnership across the national federal health community. The standards adopted through CHI serve as input for the health vocabulary and messaging standards component of IT architectures. As standards are adopted through the CHI consensus process, agencies are responsible for assuring a health data system architecture aligned with the government-wide FHA as part of the FEA.

FHA has created four primary working groups to address the following areas: Food Safety, Health Services and Electronic Health Records, Interoperability, and Public Health Surveillance. The working groups involving representatives from partner agencies develop target technical standards and business architecture for these areas across the Health Line of Business, as described in the FEA Business Reference Model (BRM). The target standards and business architecture will serve as the channel through which the Federal sector will address interoperability and expanded functionality.

FHA is aligning collaborative health IT investments alignment with Federal priorities and developing joint recommendations for how information systems, supporting technologies and other IT initiatives help fulfill program needs. In May 2004, the new Office of the National Coordinator for Health Information Technology (ONCHIT) was established in HHS. The new office will use the effects of FHA as critical vehicle for ONCHIT to realize its mission by fostering agreement and supporting progress in the government arena for architecture development. It will also use the effects of CHI as a vital force in

establishing and selecting standards, and ensuring uniform and correct implementation by lending their expertise and strong consensus based processes.

Successful Methods for Intergovernmental Information Sharing and Emergency Response

FHA and CHI have been given strong executive sponsorship and have a governance structure well-designed to lead all activities in a collaborative manner. The prescription for intergovernmental cooperation comes from the following principles these initiatives have employed:

1. Establishing clearly defined structure and composition of the collaborative body, which represents all stakeholders, including all relevant federal agencies, and who consults regularly with state and local health communities;
2. Developing and executing a communications strategy for regular dissemination of information and cross-agency interaction;
3. Developing processes which will yield consensus from all members on the critical elements for an effective Federal Health Architecture and adopt standards to guide health information and service solutions;
4. Leveraging existing interagency health collaboration efforts by developing a registry of groups, committees, and organizations working on similar or related initiatives, along with their intentions, goals, and milestones; and
5. Developing a proof-of-concept on individual health business processes sequentially through targeted working groups (e.g. food safety, surveillance).

Emergency response is one particularly important area in which federal performance can be improved by more integrated information exchange. FHA is developing a target architecture for public health surveillance systems to improve interoperability between surveillance systems across multiple agencies and in the national health community. The program is conducting an assessment of existing and planned public health systems and supporting architectures to begin the process of identifying opportunities for synergy, collaboration and possible cost savings. FHA is also developing performance goals for public health surveillance to include at a minimum: improved cycle time for the transmission of public health alerts; reduced data acquisition costs through the elimination of redundant collections; establishment of common items of interest to be collected by all appropriate agencies; and extending opportunities for cost savings through the licensing and maintenance of software at the federal level.

These efforts in public health surveillance will be closely coordinated with the National Biosurveillance Initiative that is proposed in the President's FY '05 budget. The initiative proposes an investment of \$274 million at HHS, the Department of Homeland Security, and the U.S. Department of Agriculture to expand and enhance human, animal

and plant surveillance efforts, to expand the BioWatch environmental monitoring program, and to create a surveillance integration group at DHS. Because a “real-time” surveillance capability depends upon the integration of information contained in electronic health records, implementation of the National Biosurveillance Initiative will be coordinated with the FHA public health architecture effort.

In order to promote success in intergovernmental information sharing and emergency response, it is important to develop a process to effectively coordinate the use of the grant and cooperative agreement programs by all agencies to consistently implement the FHA standards throughout the national health community. This process will need to include the national health community, including state and local health agencies. Furthermore, using an iterative approach with each health business process, it is necessary to determine the current state of government health IT architecture and initiatives, and include a strategy for accomplishing the target. It is also necessary to establish agreements among key government agencies to incorporate information interoperability standards for public health into internal business processes, including information technology architecture.

Intergovernmental information sharing will be a catalyst to improved emergency response. Successful emergency response can be delivered using strategies such as establishing a change management process for identifying, evaluating and facilitating the use of emerging technologies appropriate for ensuring continued improvements to the nation’s ability to prepare for and respond to public health emergencies. Furthermore, a government-wide effort in biosurveillance, led by the Homeland Security Council is underway. Additionally, through the work of other government-wide E-Gov initiatives, such as Disaster Management and SAFECOM, the Administration, working with state and local governments, organizations, and industry has made improvements in both the development of standards related to interoperability and increased the ability of the public safety community to share information in a more timely and efficient manner. While these initiatives continue their efforts, these specific health-related efforts are able to leverage and build from these accomplishments.

Conclusion

The FHA provided a roadmap for the exchange of Federal governmental health information. The design and evolution of the U.S. highway system provides a useful analogy. The Federal government developed Interstate highways, which connected to state highways, which connected to county roads, etc. The network built upon the existing infrastructure, leveraged partnerships, required strong governance, established well-defined interchanges between components, and evolved over time according to a master plan. The master plan has also evolved to meet the changing needs of citizens. In a similar fashion, the FHA initiative, including the adoption of government-wide data standards, will create the master plan for developing a consistent Federal framework to facilitate communication and collaboration among all health care entities across the health care spectrum to improve citizen access to health related information and services.